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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,655	11/04/2003	Hideaki Sugiya	1075.1236	5384

21171 7590 05/22/2006

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EXAMINER	
HUGHES, DEANDRA M	

ART UNIT	PAPER NUMBER
3663	

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,655	SUGIYA, HIDEAKI	
	Examiner	Art Unit	
	Deandra M. Hughes	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed 4/3/06 has been entered.

Specification

2. The amendment to the title of the invention is accepted.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 17-35 are rejected under 35 U.S.C. 102(e) as anticipated by Jones (US 2004/0052526 filed Sept. 16, 2002) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Weik (Fiber Optics Standard Dictionary, 1997).

With regard to claim 17, Jones discloses an optical amplifier comprising:

- an amplification medium (fig. 5, RA or A1 or A2) *for amplifying wavelength-division-multiplexed (WDM) light* (this is a WDM system; paragraph [0007]) *passed through an upstream using an excitation light [0108];*
- a measurement part (fig. 3; paragraph [0064]) *for measuring both input optical power of said WDM light on an input side of said amplification medium and output optical power of said WDM light on an output side of said amplification medium, or both of them* (fig. 3 discloses both input and output measurements);

- a variable gain equalizer (fig. 5, DGE) connected on a transmission line and *capable of variably setting a passing-wavelength characteristic* (paragraph [0016]);
- a database (paragraph [0041]) *for holding loss-wavelength characteristics* (this is known in the art as attenuation) *data according to a plurality of amplifying medium types with input optical power and output optical power as parameters* (the Q estimator requires fiber parameters; paragraphs [0040]-[0041]);
- an arithmetic part (fig. 5, 53-1) *for computing an inverted passing-wavelength characteristic of said transmission line and said amplification medium, on the basis of said loss-wavelength characteristic data according to a type of said transmission line held in said database and said gain-wavelength characteristic data according to a type of said amplification medium specified by said parameters, held in said database resulting from a passing-wavelength characteristic of said variable gain equalizer (*paragraph [0116] and paragraph [0081]);
- and a setting part (fig. 5, #121) *for setting a passing-wavelength characteristic of said variable gain equalizer, based on said inverted passing-wavelength characteristic computed by said arithmetic part* (paragraph [0094]).

Or, if it is held that the fiber parameters of Jones are not the parameters as claimed, Weik teaches that the fibers parameters of the Q parameter (or factor) as is

disclosed by Jones (e.g. paragraph [0041]) includes the claimed characteristics (see Weik, pgs. 814 and 489 which define Quality Factor and references Intrinsic Quality factor). It would have been obvious to one of ordinary skill (e.g., an optical engineer) in the art at the time the invention was made to conclude that the fiber parameters of Jones are the art defined parameters for the advantage of continuity in the art.

With regard to claim 18-19, 23-24, 26, 28, 30, and 33-34, paragraph [0040] discloses acquiring information about fiber line types.

With regard to claim 20, flat gain is disclosed (paragraph [0108]).

With regard to claim 21, 29, and 32, paragraph [0051] discloses optimizing the loops based on channel count.

With regard to claim 22, operation status of the optical elements is considered when determining loop settings (paragraph [0092]).

With regard to claims 25, 27, and 31, paragraph [0051] discloses pump power (or excitation light power) measurement.

With regard to claim 35, the OSA (e.g. fig. 8A) transmits data from the self-station.

Response to Arguments

5. Applicant's arguments filed 4/3/06 have been fully considered but they are not persuasive.

Applicant argues that Jones does not disclose or suggest:

A) database for holding loss-wavelength characteristics data according to a plurality of transmission line types and gain-wavelength characteristics

data according to a plurality of amplifying medium types with an input optical power and an output optical power as parameters; (page 8, last paragraph)

B) an arithmetic part for computing an invert characteristic of passing-wavelength characteristic data according to a type of said transmission line held in said data base and said gain-wavelength characteristic data according to a type of said amplification medium specified by said parameters, held in said database; (page 8, last paragraph)

C) a setting part for setting a passing-wavelength characteristic of said variable gain equalizer to said inverted passing-wavelength characteristic computed by said arithmetic part. (page 8, last paragraph)

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant merely reiterates the claim language and asserts that Jones does not teach the claimed limitations. In the rejection above, the Examiner has clearly indicated the disclosures of Jones that read on the claim language.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deandra M. Hughes whose telephone number is 571-272-6982. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Deandra M Hughes
Primary Examiner
Art Unit 3663